

CALIFORNIA HIGH-SPEED TRAIN

Program Environmental Impact Report/Environmental Impact Statement

Bakersfield to Los Angeles Region

LAND USE AND PLANNING, COMMUNITIES AND NEIGHBORHOODS, PROPERTY, & ENVIRONMENTAL JUSTICE TECHNICAL EVALUATION

January 2004

Prepared for:

California High-Speed Rail Authority

U.S. Department of Transportation
Federal Railroad Administration



U.S. Department
of Transportation
**Federal
Railroad
Administration**

CALIFORNIA HIGH-SPEED TRAIN PROGRAM EIR/EIS

Bakersfield to Los Angeles Region **Land Use and Planning, Communities and Neighborhoods, Property, & Environmental Justice Technical Evaluation**

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ACRONYMS

AIRPORT	BURBANK-GLENDALE-PASADENA AIRPORT
ATCT	AIR TRAFFIC CONTROL TOWER
AUTHORITY	CALIFORNIA HIGH-SPEED RAIL
CEQA	CALIFORNIA ENVIRONMENTAL QUALITY ACT
COG	COUNCIL OF GOVERNMENTS
EIR	ENVIRONMENTAL IMPACT REPORT
EIS	ENVIRONMENTAL IMPACT STATEMENT
EJ	ENVIRONMENTAL JUSTICE
EPA	ENVIRONMENTAL PROTECTION AGENCY
FAA	FEDERAL AVIATION ADMINISTRATION
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FRA	FEDERAL RAILROAD ADMINISTRATION
FTA	FEDERAL TRANSIT ADMINISTRATION
I-405	INTERSTATE 405 (SAN DIEGO FREEWAY)
I-5	INTERSTATE 5 (GOLDEN STATE FREEWAY)
LAUS	LOS ANGELES UNION STATION
MAP	MILLION ANNUAL PASSENGERS
MTA	METROPOLITAN TRANSPORTATION AUTHORITY
ROW	RIGHT-OF-WAY
RTP	REGIONAL TRANSPORTATION PLAN
SCAG	SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS
SR-14	STATE ROUTE 14
SR-58	STATE ROUTE 58
SR-99	STATE ROUTE 99
STIP	STATE TRANSPORTATION IMPROVEMENT PLAN
UPRR	UNION PACIFIC RAILROAD

1.0 INTRODUCTION

The California High-Speed Rail Authority (Authority) was created by the Legislature in 1996 to develop a plan for the construction, operation, and financing of a statewide, intercity high-speed passenger train system.¹ After completing a number of initial studies over the past six years to assess the feasibility of a high-speed train system in California and to evaluate the potential ridership for a variety of alternative corridors and station areas, the Authority recommended the evaluation of a proposed high-speed train system as the logical next step in the development of California's transportation infrastructure. The Authority does not have responsibility for other intercity transportation systems or facilities, such as expanded highways, or improvements to airports or passenger rail or transit used for intercity trips.

The Authority adopted a *Final Business Plan* in June 2000, which reviewed the economic feasibility of a 1,127-kilometer-long (700-mile-long) high-speed train system. This system would be capable of speeds in excess of 321.8 kilometers per hour (200 miles per hour [mph]) on a dedicated, fully grade-separated track with state-of-the-art safety, signaling, and automated train control systems. The system described would connect and serve the major metropolitan areas of California, extending from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego. The high-speed train system is projected to carry a minimum of 42 million passengers annually (32 million intercity trips and 10 million commuter trips) by the year 2020.

Following the adoption of the Business Plan, the appropriate next step for the Authority to take in the pursuit of a high-speed train system is to satisfy the environmental review process required by federal and state laws which will in turn enable public agencies to select and approve a High-Speed rail system, define mitigation strategies, obtain necessary approvals, and obtain financial assistance necessary to implement a High-Speed rail system. For example, the Federal Railroad Administration (FRA) may be requested by the Authority to issue a *Rule of Particular Applicability*, which establishes safety standards for the high-speed train system for speeds over 200 mph, and for the potential shared use of rail corridors.

The Authority is both the project sponsor and the lead agency for purposes of the California Environmental Quality Act (CEQA) requirements. The Authority has determined that a Program Environmental Impact Report (EIR) is the appropriate CEQA document for the project at this conceptual stage of planning and decision-making, which would include selecting a preferred corridor and station locations for future right-of-way preservation and identifying potential phasing options. No permits are being sought for this phase of environmental review. Later stages of project development would include project-specific detailed environmental documents to assess the impacts of the alternative alignments and stations in those segments of the system that are ready for implementation.

The decisions of federal agencies, particularly the Federal Railroad Administration (FRA) related to high-speed train systems, would constitute major federal actions regarding environmental review under the National Environmental Policy Act (NEPA). NEPA requires federal agencies to prepare an Environmental Impact Statement (EIS) if the proposed action has the potential to cause significant environmental impacts. The proposed action in California warrants the preparation of a Tier 1 Program-level EIS under NEPA, due to the nature and scope of the comprehensive high-speed train system proposed by the Authority, the need to narrow the range of alternatives, and the need to protect/preserve right-of-way in the future. FRA is the federal lead agency for the preparation of the Program EIS, and the Federal Highway Administration (FHWA), the U.S. Environmental Protection Agency (EPA), the U.S. Corps of Engineers (USACE), the Federal Aviation Administration (FAA), the U.S. Fish and Wildlife Service (USFWS), and the Federal Transit Administration (FTA) are cooperating federal agencies for the EIS.

¹ Chapter 796 of the Statutes of 1996; SB 1420, Kopp and Costa

A combined Program EIR/EIS is to be prepared under the supervision and direction of the FRA and the Authority in conjunction with the federal cooperating agencies. It is intended that other federal, state, regional, and local agencies will use the Program EIR/EIS in reviewing the proposed program and developing feasible and practicable programmatic mitigation strategies and analysis expectations for the Tier 2 detailed environmental review process which would be expected to follow any approval of a High-Speed train system.

The statewide high-speed train system has been divided into five regions for study: Bay Area-Merced, Sacramento-Bakersfield, Bakersfield-Los Angeles, Los Angeles-San Diego via the Inland Empire, and Los Angeles-Orange County-San Diego. This Local Area Growth, Development, Planning, Land Use, Socioeconomics, & Environmental Justice Technical Evaluation for the Bakersfield-to-Los Angeles Region is one of five such reports being prepared for each of the regions on the topic, and it is one of fifteen technical reports for this region. This report will be summarized in the Program EIR/EIS and it will be part of the administrative record supporting the environmental review of alternatives.

1.1 ALTERNATIVES

This Section describes the Alternatives considered in this report, including the No-Project, Modal and High-Speed Train (HST).

1.1.1. No-Project Alternative

The No-Project Alternative serves as the baseline for the comparison of Modal and High-Speed Train alternatives (Figure 1.1.1-1). The No-Project Alternative represents the state's transportation system (highway, air, and conventional rail) as it existed in 1999-2000 and as it would be after implementation of programs or projects currently programmed for implementation and projects that are expected to be funded by 2020. The No-Project Alternative addresses the geographic area serving the same intercity travel market as the proposed high-speed train (generally from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego). The No-Project Alternative satisfies the statutory requirements under CEQA and NEPA for an alternative that does not include any new action or project beyond what is already committed.

The No-Project Alternative defines the existing and future statewide intercity transportation system based on programmed and funded (already in funded programs/financially constrained plans) improvements to the intercity transportation system through 2020, according to the following sources of information:

- State Transportation Improvement Program (STIP)
- Regional Transportation Plans (RTPs) for all modes of travel
- Airport plans
- Intercity passenger rail plans (California Rail Plan 2001-2010, Amtrak Five- and Twenty-year Plans)

As with all of the alternatives, the No-Project Alternative will be assessed against the purpose and need topics/objectives for congestion, safety, air pollution, reliability, and travel times.

Figure 1.1.1-1
No-Project Alternative - California Transportation System



1.1.2 Modal Alternative

There are currently only three main options for intercity travel between the major urban areas of San Diego, Los Angeles, the Central Valley, San Jose, Oakland/San Francisco, and Sacramento: vehicles on the interstate highway system and state highways, commercial airlines serving airports between San Diego and Sacramento and the Bay Area, and conventional passenger trains (Amtrak) on freight and/or commuter rail tracks. The Modal/System Alternative consists of expansion of highways, airports, and intercity and commuter rail systems serving the markets identified for the High-Speed Train Alternative. (Figure 1.1.2-1 and Figure 1.1.2-2) The Modal Alternative uses the same inter-city travel demand (not capacity) assumed under the high-end sensitivity analysis completed for the high-speed train ridership in 2020. This same travel demand is assigned to the highways and airports and passenger rail described under the No-Project Alternative, and the additional improvements or expansion of facilities is assumed to meet the demand, regardless of funding potential and without high-speed train service as part of the system.

1.1.3 High-Speed Train Alternative

The Authority has defined a statewide high-speed train system capable of speeds in excess of 200 miles per hour (mph) (320 kilometers per hour [km/h]) on dedicated, fully grade-separated tracks, with state-of-the-art safety, signaling, and automated train control systems. State of the art high-speed steel-wheel-on-steel-rail technology is being considered for the system that would serve the major metropolitan centers of California, extending from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego. (Figure 1.1.3-1)

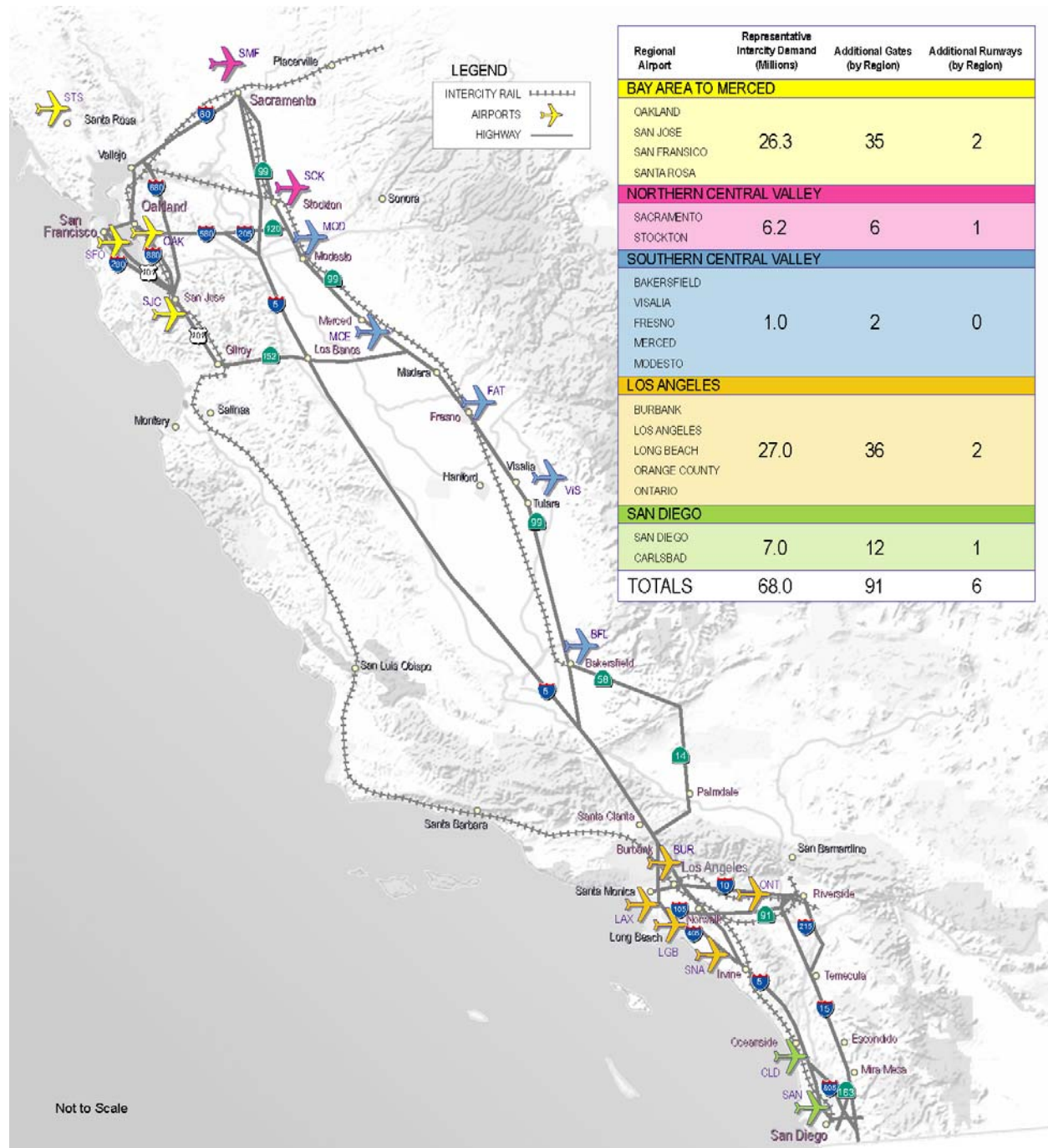
The High-Speed Train Alternative includes several corridor and station options. A steel-wheel on steel-rail, electrified train, primarily on exclusive right-of-way with small portions of the route on shared track with other rail is planned. Conventional "non-electric" improvements are also being considered along the existing LOSSAN rail corridor from Los Angeles to San Diego. The train track would be either at-grade, in an open trench or tunnel, or on an elevated guideway, depending on terrain and physical constraints.

For purposes of comparative analysis the HST corridors will be described from station-to-station within each region, except where a by-pass option is considered when the point of departure from the corridor will define the end of the corridor segment. The corridors and design options for HST for this region are shown on plans and profiles drawn on aerial photos in Appendix A.

Modal Alternative - Highway Component



Figure 1.1.2-2
Modal Alternative - Aviation Component



Legend:

- Electrified HSR Service
- Non-Electric HSR Service
- Route Options

2.0 BASELINE/AFFECTED ENVIRONMENT

2.1 STUDY AREA

The study area for land use compatibility, communities and neighborhoods, property, and environmental justice, is 0.25 mi (0.40 km) on either side of the centerline of the rail and highway corridors, and the same distance around stations, airports, and other HST-related facilities. This is the extent of area where either the Modal or HST Alternative might result in a change to land use, the level and patterns of development, and socioeconomic conditions. For the property impacts analysis the study area is narrower, 100 ft (30 m) on either side of the alignment centerlines, to better represent the properties most likely to be impacted by the improvements defined (e.g., highway widenings or new HST lines).

2.2 REGULATORY SETTING

Information relating to existing land uses, general plans, community plans and specific plans within the study area are presented below.

2.2.1 County of Los Angeles General Plan

The County of Los Angeles General Plan was adopted by the Board of Supervisors November 25, 1980. The Land Use Element of the County of Los Angeles General Plan was subsequently adopted March 1, 1982. Land Use categories of the General Plan area are used to depict the general location and intensity of land use. This Element of the General Plan contains general conditions and standards for development to clarify the General Plan policy with regard to regional land use concerns and to guide the decision-making process in the absence of applicable community level planning. Relevant elements of the County's General Plan for this analysis include the Land Use, Circulation, Housing, Conservation, Open Space and Recreation, Noise and Public Facilities.

2.2.2 City of Palmdale General Plan

The Palmdale General Plan was adopted January 25, 1993. The Land Use Element of the General Plan addresses the rapid growth in the Palmdale area and establishes a guide for long-range growth and development. Relevant elements of the City's General Plan for this analysis include the Land Use, Circulation, Environmental Resources Element, Public Services, Housing, Parks, Recreation and Trails and Noise.

2.2.3 City of Burbank General Plan Land Use Element

The Land Use Element of the Burbank General Plan was adopted in 1989. The purpose of the Land Use Element is to provide appropriate land for the variety of activities associated with urban areas and to guide future development. The Land Use Plan and Map, part of the City's General Plan, reflects the findings, goals, constraints, and development patterns of the other General Plan Elements, such as Open Space, Housing, Circulation and Noise. Land uses within the City of Burbank include residential, commercial, industrial, mountain reserve, open space, public facilities, circulation and miscellaneous (i.e. flood control channels).

The Burbank-Glendale-Pasadena Airport is designated as airport use on the City of Burbank's General Plan Land Use Map. The City of Los Angeles borders the airport to the west and north of the airport. The Land Use Plan states that this designation is intended to provide land for the Burbank-Glendale-Pasadena Airport and related facilities, and to protect the airport from uses that might restrict or inhibit its primary function as an air terminal facility. The Golden State Redevelopment Project area includes all

land use designated for airport use. Recently the Airport Board of Directors has decided to discontinue all plans to expand or relocate the airport terminal. There are no plans for any additional runways.

2.2.4 City of Los Angeles General Plan

The City of Los Angeles General Plan prepared and maintained by the Department of City Planning, is a comprehensive, long-range declaration of purposes, policies and programs for the development of the City of Los Angeles. It is approved by the City Planning Commission and the Mayor and adopted by the City Council. The General Plan is a dynamic document consisting of eleven elements; ten citywide elements and the land use element or plan for each of the City's 35 Community Planning Areas. The City's General Plan sets forth a conceptual relationship between land use and transportation on a citywide basis.

2.2.5 Sylmar Community Plan

The Sylmar Community Plan, a part of the City of Los Angeles General Plan, was adopted August 8, 1997. The Community Plan area encompasses approximately 7,990 acres of land and is located approximately 23 miles north of the Downtown Los Angeles Civic Center. The community is generally bounded by the Los Angeles City boundary line on the north and east, the City of San Fernando on the south and southeast, and the San Diego (I-405) and Golden State (I-5) freeways on the west. Land uses in the Community Plan area consist of residential, commercial, industrial, institutional, open space and vacant land.

2.2.6 Central City North Community Plan

The Central City North Community Plan, a part of the City of Los Angeles General Plan, was adopted February 5, 1985 and has had subsequent amendments adopted by City Council from 1988 to 1996. The Plan area is located east of Alameda Street to the Los Angeles River, from North Broadway Street on the north to 25th Street on the south. A majority of the Plan area is designated as industrial with commercial, open space, public/quasi-public and residential uses making up the remainder of the Plan Area. The Silver Lake-Echo Park District is located to the west of the Plan area and the Boyle Heights Community is located to the east of the Plan area. The Central City North Community Plan Area includes the LA Union Station located north of the Hollywood Freeway, this area is designated as the Government Support area, and the Little Tokyo East area located south of the Hollywood Freeway, this area is designated commercial-manufacturing and heavy industrial.

2.2.7 Alameda District Specific Plan

Alameda District Specific Plan, a part of the City of Los Angeles General Plan, was established by the City Council for a portion of the *Central City North Community Plan area*, effective June 18, 1996. The Plan area is generally bounded by Alameda Street, North Main Street, Vignes Street, the Santa Ana Freeway, the El Monte Bus way and the passenger platforms/trackage areas and contains the LA-Union Station (LAUS Existing Station).

2.2.8 Little Tokyo Redevelopment Project Redevelopment Plan

The Little Tokyo Redevelopment Project was adopted by the Los Angeles City Council on February 24, 1970 and was extended on October 5, 2000 until February 24, 2010. The plan area is generally bounded by First Street, Alameda Street, Third Street, and Los Angeles Street approximately one half mile south of Existing Union Station. An amendment to the redevelopment plan is being processed to extend the project boundary to the east and southeast to the Los Angeles River.

2.3 LAND USE

2.3.1. Existing Baseline Land Use

A. NO-PROJECT ALTERNATIVE

Burbank-Glendale-Pasadena Airport

The Burbank-Glendale-Pasadena Airport (Airport) is designated as airport use on the City of Burbank's General Plan Land Use Map. The Airport is located approximately 12 miles northwest of downtown Los Angeles, and is located primarily in the City of Burbank with a small portion of the site (to the north and west) is located in the Los Angeles corporate limits.

The Burbank-Glendale-Pasadena Airport has the following existing facilities:

- An airfield consisting of two intersecting asphalt-surfaced runways; Runways 8-26 and 15-33.
- Terminal complex consisting of a terminal building, an "airside" apron area with 14 air carrier aircraft parking positions, a "landside" multilane terminal roadway system with entrance/exit points off of Hollywood Way on the east and Empire Avenue on the south, a variety of short-term, long-term and remote parking facilities.
- Other facilities including a new air traffic control tower (ATCT) operated on-site by the Federal Aviation Administration (FAA) and aviation fuel facilities.

Existing land uses within 0.25 mile surrounding the Burbank Airport include transportation and utilities, public facilities and utilities, commercial, industrial, low density residential, medium-to-high-density residential, open space and recreation and vacant land.

B. MODAL ALTERNATIVE

Burbank-Glendale-Pasadena Airport

The Burbank-Glendale-Pasadena Airport (Airport) is designated as airport use on the City of Burbank's General Plan Land Use Map. The Airport is located approximately 12 miles northwest of downtown Los Angeles, the Airport is located primarily in the City of Burbank with a small portion of the site (to the north and west) is located in the Los Angeles corporate limits.

The Burbank-Glendale-Pasadena Airport has the following existing facilities:

- An airfield consisting of two intersecting asphalt-surfaced runways; Runways 8-26 and 15-33.
- Terminal Complex consisting of a terminal building, an "airside" apron area with 14 separate air carrier aircraft parking positions, a "landside" multilane terminal roadway system with entrance/exit points off of Hollywood Way on the east and Empire Avenue on the south, a variety of short-term, long-term and remote parking facilities.
- Other facilities including a new Airport traffic control tower (ATCT) operated on-site by the Federal Aviation Administration (FAA) and aviation fuel facilities.

Over the years this airport has considered various plans for the replacement and relocation of its historic terminal building, since the structure is too close to the runway to meet current FAA requirements. Due to extensive controversy, the Airport Authority has recently discontinued all plans for such improvements.

In contrast to the Airport Authority's policy, the Modal Alternative proposes to implement the following improvements so that the Burbank-Glendale-Pasadena Airport will serve an additional 9.9 million annual passengers:

- 19 new gates.
- One new runway.
- One new airport access off of I-5.

Existing land uses within 0.25 mile surrounding the Burbank Airport include transportation and utilities, public facilities and utilities, commercial, industrial, low density residential, medium-to-high-density residential, open space and recreation and vacant land.

C. HIGH-SPEED TRAIN STATION OPTIONS

Palmdale

The proposed Palmdale Station would be located in the City of Palmdale at a location designated for transportation and utilities, commercial, industrial and vacant land. Existing land uses within 0.25 mile surrounding the Palmdale Station include: industrial, commercial, low density residential, medium-to-high-density residential, transportation and utilities, agriculture and vacant land uses.

Sylmar

The proposed MetroLink/UPRR Sylmar Station would be located in the City of Los Angeles in the Community of Sylmar at an existing Metrolink Station. Existing land uses within 0.25 mile surrounding the Sylmar station include: industrial, commercial, medium-to-high-density residential, low-density residential, transportation and utilities and vacant land.

Burbank Airport

The proposed Burbank Airport Station would be located in the City of Burbank along the northeast border of the Burbank-Glendale-Pasadena Airport existing right-of-way (ROW). There is an existing Metrolink Station on the south side of the Airport near the terminal. The Airport is also located within the Golden State Redevelopment Project area. Existing land uses within 0.25 mile surrounding the Burbank Airport Station include: transportation and utilities, industrial, low density residential, medium-to-high density residential. The Burbank Airport Station also includes a parking structure located to the south of the proposed Station. Existing land uses within 0.25 mile surrounding the parking structure include: transportation and utilities, public facilities and institutions and commercial.

Burbank Downtown

There are two variations for the Burbank Downtown Station, for one the tracks proceed south along I-5 and for the other they proceed south along the existing Metrolink/UPRR transportation corridor.

The proposed I-5: Burbank Downtown Station would be located in the City of Burbank. Existing land uses within 0.25 mile surrounding the Burbank Downtown Station site include: transportation and utilities, industrial, commercial and low density residential, medium-to-high density residential and vacant land.

The proposed Metrolink/UPRR: Burbank Downtown Station would also be located in the City of Burbank. Existing land uses within 0.25 mile surrounding the Burbank Downtown Station site include: transportation and utilities, industrial, commercial and low density residential, medium-to-high density residential and vacant land.

Existing LAUS

The proposed Existing Los Angeles Union Station (LAUS) would be located in the City of Los Angeles at the existing Union Station/Metrolink/Amtrak Station. Existing land uses within 0.25 mile surrounding the Existing LAUS include: transportation and utilities, public facilities and institutions, industrial, commercial, open space and recreation, vacant land and land under construction.

LAUS South

The proposed LAUS South Station would be located in the City of Los Angeles. Existing land uses within 0.25 mile surrounding the LAUS South Station include: industrial, transportation and utilities, public facilities and institutions, medium-to-high-density residential, commercial, low-density residential, vacant land and land under construction.

LAUS East Bank

The proposed LAUS East Bank Station would be located in the City of Los Angeles. Existing land uses within 0.25 mile surrounding the LAUS East Bank Station include: industrial, public facilities and institutions, transportation and utilities, commercial, medium-to-high density residential, vacant land and land under construction.

Maintenance Yard

The downtown LA Maintenance Yard site would be located in the City of Los Angeles at an existing maintenance yard. Existing land uses within 0.25 mile surrounding the maintenance yard include commercial, industrial, low density residential, medium-to-high density residential, open space and recreation, public facilities and institutions, transportation, water and floodways and vacant land.

2.3.2 Future Baseline 2020 Planned Land Use

A. County of Los Angeles General Plan

All of proposed station locations are under the jurisdiction the Los Angeles County General Plan. Stated goals of the Land Use Element of the City's General Plan are as follows:

- Coordinate land use with existing and proposed transportation networks.
- Foster compatible land use arrangements that contribute to reduced energy consumption and improved air quality.
- To achieve a transportation system that is responsive to economic, environmental, energy conservation and social needs at the local community, area and countywide levels.
- To achieve an efficient, balanced, multimodal transportation system that will satisfy short and long-term travel needs for the movement of people and goods.

Each station and the Maintenance Yard are also located within local jurisdiction plan areas and community and specific plan areas within the County of Los Angeles. Compatibility with these plans is discussed below in detail for each station.

B. Palmdale

City of Palmdale General Plan

The proposed Palmdale Station would be located in the downtown area of the City of Palmdale, east of Sierra Highway (Hwy 14). The City of Palmdale General Plan Land Use Map designates the location of the proposed station to be Public Facilities (PF). Generally, the land uses within the study area surrounding the proposed station consists of office commercial (OC), business park (BP), downtown commercial (DC), commercial manufacturing (CM), community commercial (CC), industrial (IND), single-family residential (SRF-3), multifamily residential (MFR) and medium residential (MR). Goals and Policies of the Palmdale General Plan related to the High-Speed Rail Project include:

- Promote opportunities for rail service to move goods, passengers and commuters into and out of the Planning Area.
- Encourage extension of passenger rail service to the City of Palmdale.
- Support regional efforts to connect Palmdale Regional Airport to Los Angeles with a high-speed train.

C. Sylmar

Sylmar Community Plan

The proposed Sylmar Station is located in the City of Los Angeles within the jurisdiction of the Sylmar Community Plan. The Generalized Land Use Map designates land use within the study area as general commercial, public facilities, multi-family residential and single-family residential. As stated in the Community Plan, the residential areas near the Sylmar-San Fernando commuter rail station are beginning to experience densification. The Plan provides several policies for the preservation of existing residential neighborhoods and encourages "mixed-use development" along San Fernando Road near the Sylmar-San Fernando Commuter Rail Station. The Plan also provides policies to improve the community's commercial corridors and commercial area. In addition, the plan identifies the need for a more efficient regional transportation system.

D. Burbank Airport and Burbank Downtown

City of Burbank General Plan Land Use Element

The proposed Burbank Airport and the two Burbank Downtown Stations are located in the City of Burbank. Generally, land uses within the study area include commercial, industrial, transportation and utilities, public facilities and institutions, low density residential and medium-to-high density residential. The General Plan does not contain any specific goals related to the High-Speed rail projects or to encourage more transit-oriented development. Goals of the Burbank General Plan generally related to the High-Speed Rail Project include:

- The Golden State Redevelopment Project area shall be the major center for airport-related industries.
- Create a land use pattern which separates and ensures non-encroachment of conflicting or potentially conflicting land uses; and to adopt development standards which increase the compatibility of potentially conflicting land uses where they are adjacent to one another.

E. Existing LAUS, LAUS South, LAUS East Bank, and Maintenance Yard

Central City North Community Plan

The proposed Existing LAUS, LAUS South, LAUS East Bank Stations, and the Maintenance Yard site are located in the City of Los Angeles within the Central City North Community Plan. The land uses in the study area of LA Union Station include Heavy Industrial. Land uses in the study area of the LAUS South and LAUS East Bank Stations include Commercial-Manufacturing and Heavy Industrial. The Community Plan proposes a series of major Centers having high-density residential and commercial uses at several locations in the City connected by a rapid transit system and separated by low-density residential development and open spaces. The Community Plan also proposes the relationship of the tourist-oriented commercial and cultural facilities.

F. Existing LAUS

Alameda District Specific Plan

The Existing LAUS Station is located within the Alameda District Specific Plan. As stated above, land uses in the study area of the Existing LAUS Station include Heavy Industrial. A stated goal of this Specific Plan relevant to the High-Speed Rail Project is:

- Provide continued and expanded development of the site both as a major transit hub for the region, and as a mixed-use development providing office, hotel, retail, entertainment, tourism, residential and related uses within the Specific Plan area, in conformance with the goals and objectives of local and regional plans and policies.

G. EXISTING LAUS, LAUS SOUTH AND LAUS EAST BANK

Little Tokyo Redevelopment Project

The proposed Existing LAUS, LAUS South, and LAUS East Bank Stations are within 0.5 miles of the boundary of the Little Tokyo Redevelopment Project. As stated above, land uses in the study area of the LAUS Existing Station include Heavy Industrial. Land uses in the study area of the LAUS South and LAUS East Bank Stations include Commercial-Manufacturing and Heavy Industrial. A stated goal of the Little Tokyo Redevelopment Project is:

- The elimination and prevention of the spread of blight and deterioration and the conservation, rehabilitation, renewal and redevelopment of the Project area to the extent permitted by land and specified in this Plan.

2.4 POPULATION CHARACTERISTICS

This Section describes population and demographic characteristics in the regional study area, which includes Los Angeles and Kern County.

2.4.1 Trends & Growth

Total population in the regional study area increased from 9.4 million in 1990 to 10.2 million in 2000, for an average annual growth of 0.8 percent per annum (see Table 2.4-1). The majority of the growth occurred in Los Angeles County, where population increased by 656,000 persons over the period. Population in Kern County increased by 118,000 persons over the same period.

Total population in the regional study area is expected to increase to 13.5 million between 2000 and 2025, a 1.1 percent average annual growth rate. Los Angeles County is expected to capture the majority (84 percent) of the forecast increase in population. In 2020, total population in the region is expected to increase to 12.7 million, a one percent annual growth rate. Los Angeles County is expected to contribute the majority (92 percent) to the forecast increase.

Table 2.4-1
Regional Demographic and Socioeconomic Characteristics
Bakersfield-to-Los Angeles Region

	Los Angeles County	Kern County	Total
Population Characteristics			
Total Population			
1990	8,863,164	543,477	9,406,641
2000	9,519,338	661,645	10,180,983
2020	11,660,000	1,069,000	12,729,000
2025	12,274,000	1,204,500	13,478,500
% Average Annual Increase			
1990 - 2000	0.7%	2.0%	0.8%
2000 - 2020	1.0%	2.4%	1.1%
% Minority - 2000	69.1%	50.6%	67.9%
% Hispanic	45%	38%	
Per Capita Income - 1999	\$ 20,683	\$15,760	\$20,363
% Below Poverty Level - 1999	17.9%	20.8%	18.1%
Household Characteristics			
Total Households - 2000	3,133,774	208,652	3,342,426
Average Household Size - 2000	2.98	3.03	2.98

Source: 2000 United States Census; SCAG; California Department of Finance.

2.4.2 Household Size

There were 3.3 million households in the regional study area in 2000 (see Table 2.4-1). The average household size was 2.98 persons. The average household size in Kern County was higher than the regional average at 3.03 persons per household. The average household size in Los Angeles County was the same as the regional average at 2.98 persons per household.

2.4.3 Ethnicity

Minority persons, defined as non-white persons, including persons of Hispanic origin, accounted for almost 68 percent of the regional study area population in 2000 (see Table 2.4-1). Minority persons accounted for 69 percent of the population in Los Angeles County and 51 percent in Kern County.

2.4.4 Income

Income in the regional study area was \$20,363 per capita in 1999, and 18 percent of the population had incomes below the federal poverty level (see Table 2.4-1). In Los Angeles County, per capita income was \$20,683, with 18 percent of the population having incomes below the federal poverty level. In Kern County, per capita income was \$15,760, with 21 percent of the population having incomes below the federal poverty level.

2.5 NEIGHBORHOOD AND COMMUNITY CHARACTERISTICS

The Bakersfield-to-Los Angeles Region Study Area consists of three distinct sub-regions. The southern portion, extending from Los Angeles Union Station (LAUS) to Sylmar, is an older, highly urbanized area. It is characterized by a broad mix of residential, commercial, industrial and public/institutional land uses. The central portion crosses the mountains and is characterized by rugged and largely undeveloped land. Much of this area is in National Forest. A portion of the central segment passes through the high desert suburban communities of Palmdale and Lancaster. The northerly portion, extending from the northerly toe of the mountains to Bakersfield, is largely agricultural until entering the suburban mix of land uses in southern Bakersfield.

2.6 HOUSING

There were 3.5 million housing units in the regional study area in 2000 – 3.3 million in Los Angeles County and 231,000 in Kern County (see Table 2.4-2). Single family units accounted for 57 percent of total units. This share was slightly lower in Los Angeles County, at 56 percent, and higher in Kern County at 71 percent. In 2000, 4.6 percent of housing units were vacant in the regional study area. The vacancy rate in Los Angeles County stood at 4.2 percent. The vacancy rate in Kern County was almost 10 percent.

Table 2.4-2
Regional Housing Characteristics
Bakersfield-to-Los Angeles Region

	Los Angeles County	Kern County	Total
Total Units - 2000			
Single Family			
Detached	1,593,516	156,358	1,749,874
Attached	241,571	8,383	249,954
Multi-Family			
2-9 units	556,646	27,295	583,941
10-49 units	552,671	7,979	560,650
50+ units	269,884	8,491	278,375
Other	56,621	23,058	79,679
Total	3,270,909	231,564	3,502,473

Table 2.4-2
Regional Housing Characteristics
Bakersfield-to-Los Angeles Region

	Los Angeles County	Kern County	Total
% Total Units - 2000			
Single Family	56.1%	71.1%	57.1%
Detached	48.7%	67.5%	50.0%
Attached	7.4%	3.6%	7.1%
Multi-Family	43.9%	28.9%	42.9%
2-9 units	17.0%	11.8%	16.7%
10-49 units	16.9%	3.4%	16.0%
50+ units	8.3%	3.7%	7.9%
Other	1.7%	10.0%	2.3%
Total	100.0%	100.0%	100.0%
% Vacant	4.2%	9.9%	4.6%

Source: 2000 United States Census.

3.0 EVALUATION METHODOLOGY

The analysis was conducted using existing U.S. Census 2000 tract information/data compiled in a geographic information system (GIS) format, local community general plans or regional plans, as well as land use information provided by the planning agencies in each of the regions. Existing and future baseline conditions were established for the No Project Alternative by documenting existing information for existing and planned future land use policy in station and airport areas, development patterns for employment and population growth, demographics, communities and neighborhoods, housing, and economics. The No Project Alternative was compared to the future baseline plans to see if there would be potential effects on future development. Chapter 2.0 lists and discusses the general and regional plans.

Ranking systems were established to evaluate potential impacts for all three alternatives for land use compatibility, communities and neighborhoods, property, and environmental justice. Because this is a programmatic environmental review, the analysis of these potential impacts was performed on a broad scale to permit a comparison of relative differences of proposed alternatives. A more detailed analysis would be required at the project-level environmental review, should a decision be made to proceed with the proposed HST system.

Land Use Compatibility

The compatibility of the alternatives with existing land use is evaluated for highways, airports, and proposed HST alignments, stations, and maintenance facility areas. Compatibility is based on the potential sensitivity of various land uses to the changes included with the Modal and HST Alternatives, and the impact of these changes on the land use. For example, homes and schools are more sensitive to changes that may result in increased noise and vibration (see *Noise and Vibration* technical reports) or increased levels of traffic congestion (see *Traffic and Circulation* technical reports). Industrial uses, however, are typically less sensitive to these types of changes because they interfere less with normal industrial activities. Given that an area's sensitivity or compatibility is based on the presence of residential properties, low, medium, and high levels of compatibility are identified based on the percentage of residential area affected, the proximity of the residential area to proposed modal or HST system facilities, and the presence of local or regional uses (such as parks, schools, and employment centers.). For highway corridors (under the No Project and Modal Alternatives) and for proposed HST alignments, land use compatibility was assessed using GIS layers (or aerial photographs where available) to identify proximity to housing and population and to determine whether the alignments would be within an existing right-of-way or a new transportation corridor in the area. Compatibility impacts are considered low if existing land uses within proposed alignment, station, airport, and maintenance facility areas are found to be compatible with proposed changes associated with either the Modal or HST Alternative. The type of improvement that would be associated with either the Modal or HST Alternative would also affect the level of potential impact, particularly for agricultural land. Improvements such as widening of the existing right-of-way or the need for new right-of-way were considered to have a low compatibility with agricultural land. Conversely, if the improvement would be contained within the existing right-of-way or within a tunnel, the alternative was considered to be highly compatible with agricultural land.

Future land use compatibility is based on information from general plans and other regional and local transportation planning documents. Each document was examined to determine whether a project alternative would be highly compatible with the goals and objectives defined therein. The Modal Alternative is considered compatible if the highway or airport improvement is in the regional

transportation plan (RTP) or regional airport master plan. The HST Alternative is considered highly compatible if it would be located in areas planned for transportation multi-modal centers or corridor development, redevelopment, economic revitalization, transit-oriented development, or high-intensity employment. Impacts are considered low if a project alternative is determined incompatible with local or regional planning documents. Table 3.0-1 summarizes the level of compatibility of existing land use types with proposed alignment options, station areas, maintenance facilities, and airports.

**Table 3.0-1
Compatibility of Land Use Types**

Low Compatibility	Medium Compatibility	High Compatibility
Single-family residential, neighborhood park, habitat conservation area, elementary/middle school, agricultural (widened or new right-of-way needed)	Multifamily residential, high schools, community parks, low-intensity industrial, hospitals	Business park/ regional commercial, multifamily residential, existing or planned transit center, high intensity industrial park, service commercial, commercial recreation, college, transportation/utilities, high-intensity government facilities, airport or train station, agricultural (tunnel or no new right-of-way needed)

Communities and Neighborhoods

A potential impact on a community or neighborhood was identified if any of the proposed alignment options or facilities associated with each of the project alternatives would create a new physical barrier, isolating one part of an established community from another and resulting in a physical disruption to community cohesion. Improvements to existing transportation corridors, including grade separations, would not generally result in a new barrier.

Property

Assessment of potential property impacts is based on the types of land uses adjacent to the particular proposed alignment, the amount of right-of-way potentially affected by the construction type, and the land use sensitivity to potential impacts. Impacts include potential acquisition, relocation, or demolition of properties. Potential property impacts were ranked high, medium, or low as summarized below in Table 3.0-2.

Table 3.0-2
Rankings of Potential Property Impacts

Facility Requirements	Type of Development						
	<u>Residential</u>			<u>Non-residential</u>			
	Rural/ Suburban	Suburban/ Urban	Urban	Rural Developed	Suburban Industrial/ Commercial	Urban Business Parks/ Regional Commercial	Rural Non- developed
No additional right-of-way needed (also applies to tunnel segments for HST Alternative)	Low	Low	Low	Low	Low	Low	Low
Widening of existing right-of-way required	Medium	Medium	High	Low	Medium	High	Low
New corridor (new right-of-way required; includes aerial and at-grade arrangements)	High	High	High	Medium	Medium	High	Low to medium

To determine potential property impacts, the 0.25-mi (.40-km) study area was characterized by its density of development. Densities of structures, buildings, and other elements of the built environment are generally higher in urbanized areas. *Rural/suburban* residential refers to low-density, single-family homes. *Suburban/urban* is medium density, multifamily housing such as townhouses, duplexes, and mobile homes. *Urban residential* refers to high-density multifamily housing such as apartment buildings. *Rural developed* non-residential uses typically occur in non-urbanized areas and often include developed agricultural land such as vineyards and orchards. *Suburban industrial/commercial* refers to medium density non-residential uses and includes some industrial uses, as well as transportation, utilities, and communication facilities. *Urban business parks/regional commercial* refers to non-residential uses that occur in urbanized areas and includes such uses as business parks, regional commercial facilities, and other mixed use/built-up uses. *Non-rural undeveloped land* includes cropland, pasture, rangeland, and barren land. The classification of development types was based on land use information provided by the planning agencies in each of the regions.

The complete property impact analysis was prepared separately from this technical report ("California High-Speed Train Program EIR/EIS Potential Property Impacts Technical Evaluation Memo," P&D Environmental, August 15, 2003. Revised February 2004).

Environmental Justice

This analysis is based on two basic criteria: 1) Is an environmental justice population (i.e., minority or low-income population) present in the study area (0.25 mi [0.40 km] from the

alignment), and 2) What is the potential for an adverse impact (low or high)? This assessment was done using U.S. Census 2000 information and alignment information to determine if the populations exist within the study areas and if they do, whether the alignments would be within or adjacent to the right-of-way (low potential impact) or new alignments (high potential impact).

The presence of environmental justice populations was determined by following the guidelines mentioned in the regulatory section.

- At least 50% of the population in the project study is minority or low-income.
- The percentage of minority or low-income population in the project study area is at least 10% greater than the average in the county or community.

The potential for environmental justice impacts was assessed based on the size and type of right of way required for the project. For example, if an alignment was within an existing right-of-way, the potential impact was low. If the alignment was on a new alignment through an identified environmental justice neighborhood, then the potential impact was considered high. Since this is a program-level document with no preferred alternative, alignment, or stations, it is not possible to determine whether these populations would be adversely impacted disproportionately. Further study would be required to determine the type and extent of any possible impacts, and any potential benefits from the location of an HST station within the community. Such study would take place during project-level analysis.

4.0 IMPACTS

This Section evaluates how each alternative would affect land use, growth, socioeconomics and policy compared to baseline (existing and future) conditions. Impacts are summarized in Table 4.1-1 and described below.

4.1 NO-PROJECT ALTERNATIVE

4.1.1. COMPATIBILITY ISSUES OF NO-PROJECT ALTERNATIVE

Under the No-Project Alternative, neither the Modal nor the High-Speed Train Alternatives would be implemented and the Burbank Airport would remain in its existing condition (Figure A-1 in Appendix A). The site would remain designated for transportation and utilities. The existing runways and facilities would remain in their current location. In comparison to the Modal or High-Speed Train Alternatives, implementation of the No-Project Alternative would not impact low-density residential and medium-to-high density residential land uses. SR58/14: SR-99 to Palmdale has improvements programmed under the No-Project Alternative; however, these improvements will occur within existing right-of-way in Antelope Valley. None of the other segments have programmed improvements under the No-Project Alternative.

4.1.2. ENVIRONMENTAL JUSTICE

No new or expanded facilities would be implemented under the No-Project Alternative that could potentially impact minority or low-income population.

4.1.3. COMMUNITY/NEIGHBORHOOD IMPACTS

The No-Project Alternative would not implement any new transportation corridors or facilities that could potentially disrupt community cohesion.

Table 4.1-1
Detailed Analysis/Comparison Table
Impacts to Land Use and Planning, Communities and Neighborhoods, Property, and Environmental Justice

Bakersfield-to-Los Angeles Region

	Incompatibility with Existing Land Uses (Station Areas/Airports/Maintenance Facilities) (H,M, L)¹	Incompatibility with Local Plans (Station Areas/Airports/Maintenance Facilities)(Y/N)²	Environmental Justice Impacts (Y/N)³	Divides an Established Community (Y/N)	Potential Property Impacts (H,M,L)⁴	
NO-PROJECT ALTERNATIVE						
Highways						
I-5: SR-99 to SR-14 (No programmed improvements)	NA⁵	NA	N	N	L	
I-5: SR-14 to I-405 (no programmed improvements)	NA	NA	N	N	L	
I-5: Burbank to LA Union Station (LAUS) (no programmed improvements)	NA	NA	N	N	L	
SR-58/14: SR-99 to Palmdale (programmed widening in Antelope Valley in existing right of way)	NA	NA	N	N	L	
SR-14: Palmdale to I-5 (no programmed improvements)	NA	NA	N	N	L	
Airports						
Burbank (no change)	L	N	N	N	L	
MODAL ALTERNATIVE						
Highways						
I-5: SR-99 to SR-14 (widen 2 lanes)	NA	NA	N (28%/6%) ⁶	N	Low – 85% Medium – 9% High – 6% L	
I-5: SR-14 to I-405 (double-deck 4 lanes)	NA	NA	Y (85%/14%)	N	Low – 57% Medium – 29% High – 14% L	
I-5: I-405 to Burbank (widen 4 lanes)	NA	NA	Y (73%/18%)	N	Low – 7% Medium – 70% High – 23% M	
I-5: Burbank to LAUS (widen 4 lanes)	NA	NA	Y (82%/24%)	N	Low – 17% Medium – 44% High – 38% M	
SR-58/14: SR-99 to Palmdale (no widening)	NA	NA	Y (60%/24%)	N	Low – 100% Medium – 0% High – 0% L	

Table 4.1-1
Detailed Analysis/Comparison Table
Impacts to Land Use and Planning, Communities and Neighborhoods, Property, and Environmental Justice

Bakersfield-to-Los Angeles Region

	Incompatibility with Existing Land Uses (Station Areas/Airports/Maintenance Facilities) (H,M, L)¹	Incompatibility with Local Plans (Station Areas/Airports/Maintenance Facilities)(Y/N)²	Environmental Justice Impacts (Y/N)³	Divides an Established Community (Y/N)	Potential Property Impacts (H,M,L)⁴	
SR-14: Palmdale to I-5 (widen 2 lanes)	NA	NA	N (45%/12%)	N	Low – 85% Medium – 8% High – 7% L	
Airports						
Burbank (9.9 additional MAP, 19 new gates, 1 new runway, 1 new access)	H (32 %) ⁹	Y	Y (80%/22%)	N	n/a	
HST CORRIDOR AND STATION OPTIONS						
Bakersfield to Sylmar						
Alignments						
Wheeler Ridge Corridor	NA	NA	Y (84%/34%)	N	Low – 89% Medium – 4% High – 7% L	
Union Avenue Corridor	NA	NA	Y (75%/30%)	Y	Low – 88% Medium – 8% High – 5% L	
I-5: Tehachapi Crossing	NA	NA	N (68 %/14%)	N	Low – 95% Medium – 1% High – 4% L	
SR-58 Corridor	NA	NA	N (43%/13%)	N	Low – 89% Medium – 5% High – 6% L	
Antelope Valley Corridor	NA	NA	Y (51%/24%)	N	Low – 39% Medium – 35% High – 26% L	
Palmdale Station Siding	NA	NA	Y (73%/30%)	N	n/a	
Soledad Canyon Corridor	NA	NA	Y (68%/18%)	N	Low – 86% Medium – 5% High – 9% L	
Stations						
Palmdale Station	M (10 %)	N	Y (80%/45%)	N	n/a	

Table 4.1-1
Detailed Analysis/Comparison Table
Impacts to Land Use and Planning, Communities and Neighborhoods, Property, and Environmental Justice

Bakersfield-to-Los Angeles Region

	Incompatibility with Existing Land Uses (Station Areas/Airports/Maintenance Facilities) (H,M, L)¹	Incompatibility with Local Plans (Station Areas/Airports/Maintenance Facilities)(Y/N)²	Environmental Justice Impacts (Y/N)³	Divides an Established Community (Y/N)	Potential Property Impacts (H,M,L)⁴	
<i>Sylmar to Downtown Burbank</i>						
Alignments						
Metrolink/UPRR: to Sylmar Metrolink Station	NA	NA	Y (74%/18%)	N	Low – 100% Medium – 0% High – 0% L	
Sylmar Station Siding	NA	NA	Y (92%/18%)	N	n/a	
Metrolink/UPRR: Sylmar Metrolink Station to Burbank Airport	NA	NA	Y (94%/24%)	N	Low – 100% Medium – 0% High – 0% L	
Burbank Airport Siding	NA	NA	Y (78%/20%)	N	n/a	
Metrolink/UPRR: Burbank Airport to Downtown Burbank	NA	NA	Y (63%/17%)	N	Low – 100% Medium – 0% High – 0% L	
Burbank Downtown Station Siding	NA	NA	Y (58%/18%)	N	n/a	
Stations						
Metrolink/UPRR Sylmar Station	H (40 %)	N	Y (91%/14%)	N	n/a	
Burbank Airport Station	H (67 %)	N	Y (80%/19%)	N	n/a	
Burbank Downtown Station	L (1 %)	N	Y (59%/18%)	N	n/a	
<i>Downtown Burbank to Los Angeles</i>						
Alignments						
Metrolink/UPRR: Burbank Downtown Siding	NA	NA	Y (59%/20%)	N	n/a	
Metrolink/UPRR: Glendale	NA	NA	Y (78%/19%)	N	Low – 100% Medium – 0% High – 0% L	
Metrolink/UPRR: Downtown Burbank to LAUS (over and under I-5 and SR-110)	NA	NA	Y (90%/23%)	N	Low – 100% Medium – 0% High – 0% L	

Table 4.1-1
Detailed Analysis/Comparison Table
Impacts to Land Use and Planning, Communities and Neighborhoods, Property, and Environmental Justice

Bakersfield-to-Los Angeles Region

	Incompatibility with Existing Land Uses (Station Areas/Airports/Maintenance Facilities) (H,M, L)¹	Incompatibility with Local Plans (Station Areas/Airports/Maintenance Facilities)(Y/N)²	Environmental Justice Impacts (Y/N)³	Divides an Established Community (Y/N)	Potential Property Impacts (H,M,L)⁴	
Metrolink/UPRR: Downtown Burbank to LAUS (over I-5 and SR-110, south section)	NA	NA	Y (91%/27%)	N	Low – 0% Medium – 82% High – 18% M	
Metrolink/UPRR: Downtown Burbank to LAUS (under I-5 and SR-110, south section)	NA	NA	Y (91%/27%)	N	Low – 52% Medium – 43% High – 5% L	
I-5: Burbank Downtown Siding	NA	NA	Y (71%/13%)	N		
I-5: Glendale	NA	NA	Y (71%/12%)	N	Low – 9% Medium – 41% High – 50% H	
I-5: Downtown Burbank to LAUS Station (cut and cover at Silver Lake)	NA	NA	Y (80%/22%)	N	Low – 63% Medium – 10% High – 27% L	
I-5: Downtown Burbank to LAUS (aerial at Silver Lake)	NA	NA	Y (80%/22%)	Y	Low – 63% Medium – 10% High – 27%	
LAUS East Bank North	NA	NA	Y (88%/35%)	N	Low – 100% Medium – 0% High – 0% L	
LAUS East Bank Siding	NA	NA	Y (84%/33%)	N		
LAUS Existing Siding	NA	NA	Y (86%/36%)	N		
LAUS Existing South	NA	NA	Y (90%/39%)	N	Low – 0% Medium – 99% High – 1% M	
South Connection	NA	NA	Y (86%/39%)	N	Low – 100% Medium – 0% High – 0%	
LAUS South Siding	NA	NA	Y (88%/33%)	N		
LAUS Existing East	NA	NA	Y (84%/33%)	N	Low – 0% Medium – 67% High – 33% M	

Table 4.1-1
Detailed Analysis/Comparison Table
Impacts to Land Use and Planning, Communities and Neighborhoods, Property, and Environmental Justice

Bakersfield-to-Los Angeles Region

	Incompatibility with Existing Land Uses (Station Areas/Airports/Maintenance Facilities) (H,M, L)¹	Incompatibility with Local Plans (Station Areas/Airports/Maintenance Facilities)(Y/N)²	Environmental Justice Impacts (Y/N)³	Divides an Established Community (Y/N)	Potential Property Impacts (H,M,L)⁴	
East Connection	NA	NA	Y (90%/31%)	N	Low – 24% Medium – 25% High – 51% H	
Stations						
LAUS Existing	L (0 %)	N	Y (82%/38%)	N	n/a	
LAUS South Station	L (1 %)	N	Y (83%/39%)	N	n/a	
LAUS East Bank Station	L (1 %)	N	Y (81%/43%)	N	n/a	
Maintenance Yard	L (4 %)	N	Y (92%/39%)	N	n/a	

¹ Low, medium and high levels of compatibility were identified based on the percentage of residential acreage, its proximity to proposed project facilities and the presence of local (less intense) or regional (more intense) uses (such as parks, schools, employment centers)

² Stations were determined to be compatible with local plans if the stations were to be located in areas planned for transportation corridor development, redevelopment, economic revitalization, transit-oriented development, or high intensity employment.

³ "Y" in the Environmental Justice column means that minority or low-income populations have been identified within the study area at some location along the potential alignment.

⁴ The analysis of potential property impacts is based on the types of land use adjacent to the particular alignment, the amount of right-of-way potentially affected by the construction type and the land use sensitivity to potential impacts and was ranked "high," "medium," and "low" as summarized in Chapter 3.0 of this document. Proposed station sites were analyzed as part of each rail alignment and were not analyzed separately.

4.2 MODAL ALTERNATIVE

4.2.1. COMPATIBILITY ISSUES OF MAJOR AIRPORT EXPANSION OR HIGHWAY SYSTEM & INTERCHANGE ADDITIONS

A. AIRPORTS

Burbank-Glendale-Pasadena Airport

Under the Modal Alternative, the Burbank-Glendale-Pasadena Airport would be expanded to serve approximately 9.9 million additional annual passengers (MAP). This Alternative would create 19 new gates, one new runway and a new access to the airport. As shown in Figure A-2, the

existing airport would remain within the transportation and utilities land use designation. The major portion of expansion would occur to the west and the north of the existing airport. Land uses in this area consist of low-density residential, medium-to-high density residential, commercial, industrial, public facilities and open space and recreation. Five new runway clear zones would be established affecting open space, public facilities and institution, commercial, medium-to-high density residential, open space and recreation. The new access to the airport would be located to the northeast of the existing airport and would affect low density residential, medium-to-high density residential and transportation and utility land uses. As shown in Table 4.2.1-1, this alternative would impact low density residential and medium-to-high density residential land uses in the study area. Respectively, these land uses represent 31.6 percent and 6.4 percent of total acres of land uses in the study area. Since this alternative would impact more than 30 percent of low density residential land uses the Modal Alternative is considered to be of low compatibility with existing land uses. It would also be in conflict with existing Airport Board policy not to expand the Airport.

Table 4.2.1-1
Summary of Land Use in the Burbank-Glendale-Pasadena Airport Study Area

General Land Use Designation	Summary of Acres Impacted	Percent of Acres Impacted
Commercial	145.0	4.7
Extraction	48.4	1.6
Industrial	664.9	21.5
Low Density Residential	980.2	31.6
Medium-to-High Density Residential	197.4	6.4
Open Space & Recreation	119.3	3.9
Public Utilities & Institutions	70.8	2.3
Transportation & Utilities	794.8	25.7
Vacant	76.3	2.5
Total	3,097.1	

B. HIGHWAYS

I-5: SR-99 to SR-14 (widen 2 lanes)

Under the Modal Alternative, I-5 would be widened two lanes between SR-99 in Kern County and SR-14 in Santa Clarita. Land uses surrounding this segment include agricultural, open space and recreation, low density residential, industrial and commercial. The area abutting this highway also includes several designated Significant Ecological Areas. The widening would occur outside of existing right-of-way along I-5; therefore, this alternative would be less compatible with surrounding land uses than the other Modal Alternative segments.

I-5: SR-14 to I-405 (double deck 4 lanes)

Under the Modal Alternative, four double decked lanes would be added to I-5 between SR-14 in Santa Clarita and I-405 in San Fernando. Land uses surrounding this segment include industrial, transportation and utilities, and single family residential. The addition would occur generally within existing right-of-way along I-5; therefore, this alternative would be more compatible with surrounding land uses than the other Modal Alternative segments.

I-5: I-405 to Burbank (widen 4 lanes)

Under the Modal Alternative, I-5 would be widened four lanes between I-405 in San Fernando to Burbank near downtown Burbank. Land uses surrounding this segment include low density residential, industrial, commercial, public facilities and institutions, and transportation and